

ARLINGTON CIVIC FEDERATION RESOLUTION IN FAVOR OF ARLINGTON'S TRANSITION TO RENEWABLE ELECTRICITY BY 2035

Procedural History

On September 26, 2017, the Legislative Committee of the Arlington Civic Federation met to consider a proposed Resolution in Favor of Arlington's Transition to Renewable Electricity by 2035. The draft resolution was unanimously approved. The resolution was introduced to membership on October 3, 2017, at which time members had an opportunity to ask questions. In February, 2018, the resolution's footnotes and "whereas" clauses were revised to reflect new information and input from Environmental Committee and Legislative Committee members. No substantive changes were made to the "resolved" clauses. The revised text was circulated to both committees for comment on February 8, and shared with the Executive Committee at its February 11 meeting. Two additional revisions were made in response to comments received and the text was recirculated to both committees on February 16 for final approval, which was achieved without dissent on Wednesday, February 21, 2018. Legislative Committee and Environmental Committee members participating in the review were: Ron Haddox (Chair, Legislative Committee), John Seymour (Chair, Environmental Committee), Juliet Hiznay, Takis Karantonis, Rick Keller, Barbara Swart, Sarah Shortall, and Andy Ludwig.

Common Questions and Answers:¹

Reading the Resolution text is highly recommended. It includes helpful background and citations to more detailed information.

What does this resolution ask the County Board to do?

The resolution calls on the County Board to set a goal for the County to reach net 100% renewable electricity community-wide by 2035; to ask staff to develop appropriate plans in support of this goal; and to pursue appropriate policies supportive of this goal at the state and federal levels. There is often confusion about certain aspects of the proposal. It is limited to electricity only, not all forms of energy, and is strictly a local proposal. It does not depend on or call for the entire grid to be carbon free, or for Virginia or any other jurisdiction to adopt this goal. It does not in any way require Arlington to leave the grid or establish its own utility. This resolution helps clarify a desired long-term goal, but does not call for or create an obligation to spend public or private funds.

What does "net" 100% renewable electricity mean?

The proposal relies on the ability of the County government, businesses, and residents to offset non-renewable electricity use by generating or purchasing an equal or greater amount of

¹ In developing these questions and answers, the Legislative Committee relied significantly on the findings, analysis and language of the Arlington Environment and Energy Conservation Commission (E2C2) in its letter to the County Board of December 20, 2017, entitled "E2C2 Position in Favor of Arlington County Commitment to 100% Renewable Electricity by 2035." The E2C2 letter is available online at <https://commissions.arlingtonva.us/letters/>.

renewable electricity and placing it on the grid. This is the only practical approach to take given the high likelihood that the grid serving Arlington will continue to deliver some electricity from non-renewable sources in 2035. This is the same approach widely used in the business world,² higher education, municipal governments, and other institutions.³ It provides the same greenhouse gas reduction benefits as if renewable electricity had been supplied to Arlington through the grid.

What are the main benefits of the proposal?

The two main benefits are (a) addressing climate change in a meaningful way locally by meeting Arlington's greenhouse gas emission reduction goals, and (b) economic benefits described in greater detail below.

1. Meeting Arlington's greenhouse gas emission reduction goals

There is overwhelming scientific consensus that we must sharply reduce fossil fuel-based energy use to avoid catastrophic climate change. Arlington has established itself as a leader in this effort in many ways, and has set a goal of reducing greenhouse gas emissions by 75 percent by 2050. Because Arlington relies on electricity for about two-thirds of its energy use, the transition to renewable electricity will make an enormous contribution toward achieving our established goal.

2. Economic benefits

Economic benefits fall into several categories:

- **Low cost electricity.** The dramatic and ongoing drop in renewable electricity prices is driving the transition to renewables. In fact, renewable electricity already is the lowest-cost form of new electricity generation in Virginia, according to Dominion Energy Virginia. This price advantage is small now but growing each year, creating a strong basis for the 21.5% average annual growth rate in adoption of renewable electricity in Arlington needed to reach 100% in 2035.
- **Enhancing Arlington's economic competitiveness.** Major businesses are increasingly considering local commitments to renewable energy as an important factor in siting their offices. This is especially true in the technology sector, which is vitally important to Arlington's economic future, and is becoming the norm in other sectors as well. Sixty-three percent of Fortune 100 companies now have set clean energy targets.⁴

² See, e.g., standards used by RE 100, available online at <http://there100.org/going-100>

³ For the EPA's list of 995 institutions that already have achieved 100% offsets, totaling 21.2 billion KW hours per year, see <https://www.epa.gov/greenpower/green-power-partnership-100-green-power-users>

⁴ World Wildlife Fund, Ceres, Calvert Investments, CDF, Power Forward 3.0 Report, April 2017, available at <https://www.worldwildlife.org/publications/power-forward-3-0-how-the-largest-us-companies-are-capturing-business-value-while-addressing-climate-change>

- **Energy security and resilience.** Renewable electricity is sourced from many locations, and increasingly will involve energy storage and, where appropriate, microgrids that are able to “island” themselves from the grid in emergencies. This less centralized and more flexible approach to generation provides many advantages in the event of a disaster affecting the power grid.

Where will all this renewable energy come from?

There are three main categories of renewable electricity available to Arlington:

- **Off-site utility-scale renewable electricity generation.** The proposal relies substantially on the availability of large-scale renewable electricity generated outside of Arlington. These large-scale operations are the lowest-cost providers of renewable electricity, and already are economically viable in Virginia.⁵ Some solar developments are being built by Dominion Energy, which is beginning to offer renewable electricity to its customers through a variety of initiatives. Dominion has requested that it be allowed to charge its residential customers a net premium of about 1.5 cents per kilowatt hour for a new “community solar” program⁶, which relies exclusively on smaller, less efficient solar facilities. That premium, if approved, would be recalculated annually and would decline significantly over time as the cost of generating solar electricity continues to fall, and as the costs of administering the program decline. Other solar developments are being built by independent businesses that can sell solar electricity via power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs).⁷ One example of how the “VPPA” approach can work is the current initiative by the Northern Virginia Regional Commission (NVRC) exploring the possibility of a large-scale VPPA to offset usage by government operations of member jurisdictions, such as Arlington County.⁸
- **Solar power generated in Arlington on rooftops and other surfaces.** Generating solar electricity on rooftops and other surfaces in Arlington is expected to grow dramatically as solar technology continues to advance in efficiency and drop in price. New rooftop solar products are expected to appeal to a wider range of customers, and to provide energy storage options for backup power and added flexibility. It will become cost effective to cover more surfaces, and easier and more economically compelling for property owners to do so, especially in connection with new building, renovation, and roof replacements.

⁵ Currently, solar developers have filed a Notice of Intent for projects totaling more than 2,500 MW in Virginia, up from 22 MW two years ago. A current list of projects is available online at

<http://www.deq.virginia.gov/Programs/RenewableEnergy/RenewableEnergyProjectsNoticesofIntent.aspx>

⁶ Dominion’s description of its proposed “Community Solar” program is available online at <https://www.dominionenergy.com/communitysolar>. A more detailed description, including rate proposals, is available from the State Corporation Commission, Case Number PUR-2018-00009, linked to this Webpage:

<http://www.scc.virginia.gov/case/PublicComments.aspx>.

⁷ For a general description of PPAs, VPPAs and other renewable power contracts, see <https://www.epa.gov/greenpower/green-power-supply-options>

⁸ For an overview of the NVRC initiative, see “Northern Virginia Governments Look at Major Renewable Energy Purchase,” available online at <https://powerforthepeopleva.com/2017/11/17/northern-virginia-governments-look-at-major-renewable-energy-energy-purchase/>

- **Use of Renewable Energy Certificates (RECs).** The proposal allows for the purchase of renewable energy certificates (RECs) to correct any unanticipated shortfall as Arlington approaches its 100% goal. RECs are tradable energy instruments representing proof that electricity has been generated from a renewable source.⁹ They are available at modest wholesale prices and are a widely accepted method of offsetting non-renewable electricity use.¹⁰ For example, Georgetown University offset its electricity use in 2016 by 129% primarily through the purchase of RECs.¹¹ In 2016, Montgomery County, Maryland also began to obtain 100% of its electricity supply from renewable sources, partially through RECs.

What are the main concerns people have with this proposal?

The number one concern, not surprisingly, is: “How much will this cost?” Variations of the question ask whether it would cost less to make the change more gradually, and, if so, whether the extra cost is “worth it.” These are good questions. There are two main responses:

First, the transition to renewable electricity is driven by widespread expectations of very low renewable prices combined with large gains in social welfare from addressing the threat of catastrophic climate change and reducing the public health burdens associated with fossil fuel use. So the “costs” incurred, for example, in placing solar panels on a public building, or establishing a program to encourage renewable electricity, are expected to be offset many times over in lower energy bills and other gains.

Second, this resolution does not require or call for any specific expenditures beyond engagement by Arlington County staff in developing a long-term plan to reach the goal. The resolution does not pre-judge the details of that plan, and it leaves determinations of what is necessary and “worth it” to the normal political and budgetary process. Every energy-related expenditure should be subject to open debate. This resolution helps clarify a desired long-term goal, but does not otherwise create an obligation to spend public or private funds.

⁹ More information on RECs is available online at [https://en.wikipedia.org/wiki/Renewable_Energy_Certificate_\(United_States\)](https://en.wikipedia.org/wiki/Renewable_Energy_Certificate_(United_States)).

¹⁰ For a general description of RECs and other renewable power contracts, see <https://www.epa.gov/greenpower/green-power-supply-options>

¹¹ For a list of major universities that have offset some or all of their electricity use, see <https://www.epa.gov/greenpower/green-power-partnership-top-30-college-university>